



CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT
SURVEY AND LAND RECORDS
JULY 1, 2006

TO ALL ENGINEERS AND SURVEYORS DOING BUSINESS IN THE CITY OF RIVERSIDE

TO ENGINEERS AND SURVEYORS DOING WORK IN THE CITY OF RIVERSIDE:

RE: Monumentation of Subdivisions
Current Version: July 1, 2006
Update May 24, 2005
Update to Policy dated November 1, 2003
Update to policy dated July 1, 1995

For the benefit of those Engineers and Land Surveyors performing work under Section 18.10.070 of the Subdivision Ordinance of the City of Riverside, we are implementing the following updated policy on "Survey and Monuments":

GENERAL

Prior to the filing of any final subdivision map in the City of Riverside, a field survey in accordance with the State Land Surveyors Act and City Ordinance shall be made. The survey shall locate the exterior boundary of the subdivision in relation to surrounding properties and surveys. All monuments shall be set on the exterior boundary at all corners, angle points and beginning and ends of curves prior to recordation of the subdivision map.

The setting of interior monuments may be delayed if the engineer or land surveyor certifies on the map that they will be set on or before a specific date and the subdivider/developer submits a deposit to guarantee payment of the cost of setting such monuments. (Section 66496)

The City Surveyor may grant an additional time extension for the setting of the final monuments if the engineer or surveyor submits a written request stating:

- a. The reason for the extension.
- b. That the monument deposit remains sufficient to place the final monuments or that additional monies will be deposited.
- c. That the developer is in agreement with the extension and agrees to place any additional monies on deposit that are required to guarantee placement of the final monuments.

The approval or denial of any time extension will be at the discretion of the City Surveyor.

Whenever a monument is set that is of a different character than called for on the recorded map, the recorded map must be amended or a certificate of correction must be filed. See section 66469 of the Subdivision Map Act.

MONUMENTS AND PLACEMENT

All monuments shall be placed in accordance with Section 8771 of the State Land Surveyors Act, and City of Riverside Subdivision Ordinance. Acceptable monuments shall meet the following criteria.

1. Iron Pipe and Tag or Plug - These may be set at all lot corners, B.C.'s and E.C.'s and angle points in lot lines. Iron Pipe and Tags may also be used in street centerlines and street centerline intersections but the use of plastic plugs for centerline monuments is not acceptable. Additionally Plastic Plugs should not be used in parking lot surfaces. It is the opinion of the City Surveyor that plastic plugs in these surfaces are worn off or damaged by vehicle traffic and therefore do not constitute a durable monument.

Iron Pipes must be a minimum of 3/4" I.D. and not exceed 2" I.D. They should be a minimum 15" long. Unless there are reasons to the contrary they should be set flush.

2. Spike and Tag - These may be set at all B.C.'s and E.C.'s and angle points in street centerline, and street centerline intersections. They must have a minimum 1/2" shank diameter and be 6" long. They must be set flush in the finished surface of a typical street section. If the street is not constructed of a typical section then an Iron Pipe and Tag must be set to provide proper monument stability. A spike and tag may also be set as a property corner that falls in a paved surface such a parking lot.
3. Lead, Brass Pin, and Tag - These may be set in the top of a standard concrete curb at the prolongation of side lot lines in lieu of front lot line monumentation if so designated on the Tract Map. They may also be used as tie points for the street centerline monumentation. If used as centerline tie points they need not be tagged. The hole for the lead should be a minimum 3/4" deep and 1/2" diameter. The location should be slightly recessed to prevent the Tag from being scraped off. Care should be taken to prevent damage and fracturing to the concrete surface. Inspection staff prior to releasing the improvement performance bond may require replacement of damaged curb.
4. Ramset Nail/Stud and Tag - These may be set in the top of a standard concrete curb at the prolongation of side lot lines in lieu of front lot line monumentation if so designated on the Tract Map. They may also be used as tie points for the street centerline monumentation. If used as centerline tie points they need not be tagged. The location should be pre-drilled for a countersink to be slightly recessed and prevent the Tag from being scraped off. Care should be taken to prevent damage and fracturing to the concrete surface. Inspection staff prior to releasing the improvement performance bond may require replacement of damaged curb.
5. Reference, Offset Monuments - At inaccessible corners and corners where monuments cannot be made permanent, offset or reference monuments will be allowed. They should be set in a manner as to allow the true point to be located without "devious" surveys. Their use and location shall be approved only after the facts requiring them are submitted to this office for review. Offset or reference monuments should be used as a last resort.

6. Typical Omissions - Front lot line monuments and monuments on street right of ways may be omitted where centerline monuments are set and side lot lines are monumented in the top of a standard curb at their prolongation.

NOTE: 2" X 2" Redwood Hubs are not acceptable for final monumentation of any boundary or lot line.

CENTERLINE MONUMENT TIES

Acceptable centerline monument ties shall meet the following criteria:

1. They should be prepared on 8 1/2" x 11", 20 lb. bond paper. An acceptable centerline tie note form is available at the Public Works Counter. Use the front side of the sheet only.
2. All notes (except for east-west streets) should be shown with the north arrow pointing generally towards the top of the sheet. For east-west streets, the north arrow should point towards the left side or top left corner of the sheet.
3. Lettering should be so oriented that it is most conveniently read from the bottom and/or the right side of the sheet.
4. Each sheet should show only one street intersection. Multiple B.C.'s and E.C.'s may be shown when they occur between street intersections. In this instance the general location of cross streets should be included for reference.
5. All tie sheets should be drawn in black ink.
6. Use only standard or accepted abbreviations on the notes.
7. All survey monuments will be fully described. This includes tie points.
8. All centerline intersection monuments, set or found must be tied out with a sufficient number, not less than four, of durable, distinctive reference points; lead & brass tack, ramset nail, or equal. Angles to the ties are not necessary unless there is a possibility that the ties would be difficult to locate at a future date. The tie notes should indicate if they are tangent-over. Distances are required to all tie points regardless of whether they are tangent-over. Found centerline monuments may be excluded if the monument and ties found are of the same character as shown on an existing centerline tie sheet.
9. Each tie sheet will show the following information:
 - a. Tract number/P.M. number.
 - b. The firms name if applicable.
 - c. Engineer's or Surveyor's name and R.C.E. or L.S. Stamp/Seal
 - d. Date of survey.
 - e. North arrow.
 - f. Scale, if applicable.
 - g. The boundary line of the subdivision, if applicable.
 - h. Monument notes. Monuments may be individually described.
 - i. Street names.
 - j. Private streets labeled as such.

MONUMENTS DEPOSIT RELEASE - DEMAND ON DEPOSIT

In accordance with Section 66497 of the State Subdivision Map Act, the City of Riverside will use the following procedures for making demand on, or the releasing of, monument deposits placed as security for delaying the setting of final interior monuments within subdivisions in the City of Riverside.

1. Deposit Release - Within 5 days after the final setting of all monuments has been completed the engineer or surveyor shall forward to this office:
 - a. A reproducible copy of the Centerline Monument Ties
 - b. A Monument Deposit Release Letter stating that the monuments have been set as shown on the subdivision map in accordance with the State Land Surveyors Act and:
 1. That payment has been received for setting the final monuments and the deposit can be released to the developer/subdivider.Or
 2. That payment has not been received. - c. If the engineer or surveyor does not submit a paid statement the City will refund the deposit when the developer submits evidence of payment and receipt thereof by the engineer or surveyor.
2. Demand on Monument Deposit - If the engineer or surveyor has not been paid for setting the final monuments and wishes to make demand on the monument deposit they shall submit to this office:
 - a. A letter requesting payment for setting the final monuments from the monument deposit. The letter should include that the engineer or surveyor has previously submitted the Centerline Monument Ties and a Monument Release Letter stating they had not been paid. In addition the engineer shall submit:
 1. A copy of a letter notifying the developer of the placement of the final monuments and requesting payment for it.
 2. A copy of the invoice or bill submitted to the developer detailing the fee and charges for the placement of the final monuments.

If the subdivider/developer does not present evidence that the engineer or surveyor has been paid the City of Riverside will, within three months, pay to the engineer or surveyor from the deposit any amount due.

PRIVATE STREETS

The City does not require monumentation and centerline tie notes for private street centerlines. However, failure to monument the centerline may require additional front lot monumentation. Private street monumentation shall meet the following criteria.

1. If the monument notes on the subdivision map indicate that centerline tie notes are to be furnished to the City, the Map Checker shall verify the intent of the surveyor.
2. If the centerline of private streets are not monumented the City will require that all B.C.'s, E.C.'s, angle points, and lot lines in the lots adjacent to the private street be monumented.
3. If the monument notes on the subdivision map indicate that street centerlines will be monumented, the City will inspect the monuments.
4. If street centerlines are monumented and centerline tie notes are furnished to the City, the City will field check the monuments and tie sheets, then file the notes.
5. If the monument notes on the subdivision map indicate that street centerline ties will be furnished, the notes will be required by the City unless a Certificate of Correction eliminating them is filed.

CENTERLINE TIES CHECKLIST

CHECK

- _____ North Arrow
- _____ Scale
- _____ Date
- _____ Street centerline, section lines, rancho lines indicated and identified.
- _____ Found monuments solid, set monuments clear
- _____ Locations and character of ties shown.
- _____ Ties to monuments shown with measured and record (if any) distances.
- _____ Every monument identified and referenced to a record map.
- _____ Tract/Parcel Map numbers ghosted in appropriate area.
- _____ Oriented with North arrow pointing generally towards top or right of page.
- _____ Referenced to adjacent cross streets where applicable.
- _____ Description arrowed to appropriate monument or line.
- _____ Use of details when overall sketch is too cluttered.

SAMPLE LETTER

REQUEST TO DEFER

PLACEMENT OF MONUMENTS

City of Riverside
Public Works Department
3900 Main Street
Riverside, CA. 92522

Attn: City Surveyor

Dear Sirs:

In accordance with Section 66496 of the Subdivision Map Act of the State of California I hereby request that the placement of the interior monumentation for Tract/Parcel Map No. XXXXXXXX be deferred for one year. The cost for setting all interior monuments and providing centerline ties will be \$XXXXXXXXXX.

This amount should be placed on deposit by the developer to guarantee payment for final monumentation and centerline ties.

I understand that in accordance with the Subdivision Map Act, should I be unable to collect payment for setting the final monumentation, I can make demand on the deposit in this amount and acknowledge that it is my obligation to set all monuments and submit all required centerline ties.

(Optional)

I further request, due to grading and construction concerns, that the placement of boundary monuments be deferred until placement of the interior monuments. I agree that should the boundary monuments be needed for the survey of adjacent lands I will have them set within 2 weeks of receiving a written request. The cost associated with the placement of the boundary monuments has been included with the interior monuments noted above.

Sincerely,

Jack or Jill Surveyor

SEAL